

CLAIM AMENDMENTS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-41. canceled

42. (new) A pharmaceutical composition comprising:

a) a therapeutically-active compound having

i) an aqueous solubility of less than about 1×10^{-4} molar; and

ii) a substantial binding affinity to plasma proteins where greater than about 90% of the therapeutically-active compound is protein bound in spontaneous equilibrium at room temperature; and

b) a plasma protein in controlled aggregation state;

where greater than about 98% of the therapeutically-active compound is non-covalently bound to the plasma protein.

43. (new) The pharmaceutical composition of claim 42 where the composition is in solid form.

44. (new) The pharmaceutical composition of claim 42 where the composition is an aqueous solution.

45. (new) The pharmaceutical composition of claim 42 where the composition is a lyophilized solid.

46. (new) The pharmaceutical composition of claim 42 where the therapeutically-active compound is a cytostatic, an antibiotic, a vitamin, an antiinflammatory, an analgesic, an anticonvulsant, an immunosuppressant, an antiepileptic, an anxiolytic, a hypnotic, an antifungal agent, an anticoagulant, a lipid peroxidase inhibitor, a coronary vasodilator, an antiarrhythmic agent, a cardiotonic, a uricosuric, an antithrombotic, a steroid hormone, or a photo-sensitizer.

47. (new) The pharmaceutical composition of claim 42 where the therapeutically-active compound is amphotericin B, an adriamidine analogue, apazone, azathioprin, bromazepam, camptothecin, carbamazepin, clonazepam, cyclosporin A, diazepam, dicumarol, digitoxin, dipyridamole, disopyramide, flunitrazepam, gemfibrozil, ketochlorin, ketoconazole, miconazole, niflumic acid, oxazepam, paclitaxel, phenobarbital, phenytoin, progesterone, propofol, ritonavir, sulfinpyrazone, suprofen, tacrolimus, tamoxifen, taxonoid, testosterone, tirilazad, trioxsalen, valproic acid, or warfarin.

48. (new) The pharmaceutical composition of claim 42 where the plasma protein is a serum albumin, an immunoglobulin, a glycoprotein, an interferon, or an interleukin.

49. (new) The pharmaceutical composition of claim 48 where the plasma protein is a human plasma protein.

50. (new) The pharmaceutical composition of claim 48 where the plasma protein is a recombinant plasma protein.

51. (new) The pharmaceutical composition of claim 42, where the therapeutically-active compound is present in a mole/mole ratio to the plasma protein within the range of 1:0.05 to 1:100.

52. (new) The pharmaceutical composition of claim 47, where the therapeutically-active compound is paclitaxel, amphotericin B, camptothecin, carbamazepin, cyclosporin A, or propofol.

53. (new) The pharmaceutical composition of claim 52, where the therapeutically-active compound is paclitaxel.

54. (new) The pharmaceutical composition of claim 53, where the plasma protein is human serum albumin or human gamma globulin.

55. (new) The pharmaceutical composition of claim 54, where the plasma protein is human serum albumin.

56. (new) The pharmaceutical composition of claim 42, wherein the pharmaceutical composition is an injectable form suitable for parenteral administration.

57. (new) A pharmaceutical composition prepared by a process comprising:

a) dissolving a therapeutically-active compound in a water-miscible, pharmaceutically acceptable organic solvent;

b) dissolving a plasma protein in an aqueous solution;

c) adding the organic solvent in step a) to the aqueous solution in step b);

d) removing the organic solvent;

to form a pharmaceutical composition where greater than 98% of the therapeutically-active compound is non-covalently bound to the plasma protein.

58. (new) The pharmaceutical composition of claim 57 where the therapeutically-active compound is a cytostatic, an antibiotic, a vitamin, an antiinflammatory, an analgesic, an anticonvulsant, an immunosuppressant, an antiepileptic, an anxiolytic, a hypnotic, an antifungal agent, an anticoagulant, a lipid peroxidase inhibitor, a coronary vasodilator, an antiarrhythmic agent, a cardiotonic, a uricosuric, an antithrombotic, a steroid hormone, or a photo-sensitizer.

59. (new) The pharmaceutical composition of claim 57 where the therapeutically-active compound is amphotericin B, an adriamidine analogue, apazone, azathioprin, bromazepam, camptothecin, carbamazepin, clonazepam, cyclosporin A, diazepam, dicumarol, digitoxin, dipyridamole, disopyramide, flunitrazepam, gemfibrozil, ketochlorin, ketoconazole, miconazole, niflumic acid, oxazepam, paclitaxel, phenobarbital, phenytoin, progesterone, propofol, ritonavir, sulfinpyrazone, suprofen, tacrolimus, tamoxifen, taxonoid, testosterone, tirilazad, trioxsalen, valproic acid, or warfarin.

60. (new) The pharmaceutical composition of claim 57 where the plasma protein is a serum albumin, an immunoglobulin, a glycoprotein, an interferon, or an interleukin.

61. (new) A method of treating cancer comprising administering to a patient in need thereof a pharmaceutical composition of claim 53 comprising a therapeutically effective amount of paclitaxel.

62. (new) A method of treating a fungal infection comprising administering to a patient in need thereof a pharmaceutical composition of claim 52 comprising a therapeutically effective amount of amphotericin B.

63. (new) A method of treating cancer comprising administering to a patient in need thereof a pharmaceutical composition of claim 52 comprising a therapeutically effective amount of camptothecin.

64. (new) A method of treating hypercholesterolemia or hyperlipidemia comprising administering to a patient in need thereof a pharmaceutical composition of claim 52 comprising a therapeutically effective amount of gemfibrozil.

65. (new) A method of treating a patient in need of immunosuppression comprising administering to the patient a pharmaceutical composition of claim 52 comprising a therapeutically effective amount of cyclosporin A.

66. (new) A method of treating anxiety or pain comprising administering to a patient in need thereof a pharmaceutical composition of claim 52 comprising a therapeutically effective amount of propofol.